## REMARKS

Applicants respectfully request reconsideration of the pending claims as follows:

**The Rejection of Claims 1-8 as Being Directed to Non-Statutory Subject Matter:**

As discussed in the background section, it is conventional to calculate non-coherent integration sums corresponding to a number of possible code-phase and frequency combinations. The non-coherent integration sums are then processed to determine whether a positioning signal has been detected at one of the investigated code-phase and frequency combinations. In this fashion, a GPS receiver may establish that the positioning signal has been received possessing the particular code-phase and frequency combination that provided the maximum non-coherent integration sum. Thus, claim 1 now recites the tangible and useful act of "processing the current non-coherent integration sum to determine whether the positioning signal is detected according to the selected code phase and frequency." Accordingly, claim 1 as amended and its dependent claims are directed to statutory subject matter.

**The Rejection of Claims 1-8 as Being Unpatentable Over Kawasaki (USP 5,329,549) in View of Motamedi (USP 4,943,974):**

As noted by the Applicants above, it is conventional to non-coherently integrate correlation values corresponding to various code-phase and frequency combinations. Such integration, however, demands considerable memory space, thereby adding to cost and complexity. Applicants have provided a non-coherent integration process that alleviates this memory demand. As discussed with regard to Figure 2, a non-coherent integration sum may be saturated such that the sum is maintained between a minimum value and a maximum value. Should the correlation value from a given segment be relatively small, the non-coherent integration sum is maintained at a specified minimum value L (step 204). On the other hand, should the non-coherent integration sum exceed a high threshold value H, further accumulations are halted (step 205). In this fashion, memory demands are greatly reduced while still allowing a sufficient signal-to-noise ratio for signal detection and estimation refinement.

Claim 1 as amended reflects these advantageous acts. For example, the possibility that the non-coherent summations may be halted if the non-coherent integration sum exceeds a desired threshold and also the saturation of the non-coherent integration sum at a minimum value is reflected in the acts of "processing each segment in a subset of the segments by: correlating the segment with a reference signal of a selected code phase and frequency to obtain a complex correlation value; processing the complex correlation value to provide a non-coherent correlation value; summing the non-coherent correlation value with a previously-calculated non-coherent integration sum to provide a current non-coherent integration sum; [and] if the current non-coherent integration sum is less than a predetermined minimum, assigning the current non-coherent integration sum to the predetermined minimum." No new matter is added, the support being, for example, as discussed above.

The cited prior art stands in sharp contrast. For example, the primary Kawasaki reference in Col. 5, lines 32-37 is merely discussing the correlation of a received signal with a reference signal having a certain code-phase and frequency and is thus cumulative to the discussion in Applicants' background section. The Motamedi reference adds nothing further as it is merely directed to the synchronization to burst messages using a surface acoustic wave (SAW) filter processing (see, e.g., the abstract). The citation to Col. 6, lines 59-67 is just a discussion of a correlation within the SAW followed by envelope detection. Accordingly, claim 1 and its dependent claims are allowable over the combination of these references.

Dependent claims 2, 3, 4, 6, and 7 have been amended in light of the amendment to claim 1 (claims 5 and 8 being cancelled).

In addition, the specification has been amended to update the status of the incorporated references.

If the Examiner has any questions or concerns, a telephone call to the undersigned at (949) 752-7040 is welcomed and encouraged.

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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office on the date shown below.

Saundra L. Carr

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Date of Signature 7-20-07

Respectfully submitted,

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